

WHAT IS CLAIMED IS:

1. A thin film transistor comprising:
an active layer, in which a source region and drain region are formed;
a first light-shielding film shielding a light incident on said active layer; and
a second light-shielding film disposed between said active layer and said first light-shielding film,
wherein a carrier concentration of at least a surface portion of said second light-shielding film which opposes said active layer is about $10^{17}/\text{cm}^3$ or less.
2. The thin film transistor according to Claim 1,
wherein a distance between said second light-shielding film and said active layer is from about 100nm to about 350 nm.
3. The thin film transistor according to Claim 1,
wherein said active layer has a low-concentration carrier region between a source region and a channel region, and
wherein between a drain region and the channel region, said low-concentration carrier region has the same conductive type as the source region and the drain region and has lower impurity concentration than the source region and the drain region, and
wherein said second light-shielding film has a portion which overlaps said channel region and said low-concentration carrier region in terms of plane.
4. The thin film transistor according to claim 1,
wherein said second light-shielding film has a photo-absorption property.

5. The thin film transistor according to claim 1, further comprising a dielectric film disposed between said first light-shielding film and said second light-shielding film.

6. The thin film transistor according to claim 1, wherein said second light-shielding film is formed on said first light-shielding film.

7. A thin film transistor comprising:
an active layer, in which a source region and drain region are formed;
a first light-shielding film shielding a light incident on said active layer; and
a second light-shielding film disposed between said active layer and said first light-shielding film,

wherein an electric field intensity of a surface portion of said second light-shielding film which opposes said active layer includes about 80% or less of that of a surface portion of said second light-shielding film which opposes said first light-shielding film.

8. The thin film transistor according to Claim 7,
wherein a distance between said second light-shielding film and said active layer is from about 100nm to about 350 nm.

9. A thin film transistor comprising:
an active layer, in which a source region and drain region are formed;
a first light-shielding film shielding a light incident on said active layer; and
a second light-shielding film disposed between said active layer and said first light-shielding film,
wherein said second light-shielding film is made of a semi-insulating film.

10. The thin film transistor according to Claim 9, wherein a carrier concentration of said second light-shielding film is about $10^{17}/\text{cm}^3$ or less.

11. A thin film transistor comprising:

an active layer, in which a source region and drain region are formed;

a first light-shielding film shielding a light incident on said active layer;

a second light-shielding film disposed between said active layer and said first light-shielding film,

wherein said second light-shielding film is made of

a material selected from a group consisting of amorphous silicon, crystallite silicon, amorphous Silicon Germanium, poly germanium, amorphous germanium, poly Silicon Germanium, and any combination thereof.

12. The thin film transistor according to Claim 11, wherein a carrier concentration of said second light-shielding film is about $10^{17}/\text{cm}^3$ or less.

13. A thin film transistor substrate comprising:

a light transmission substrate;

a transistor array including a plurality of thin film transistors disposed on said light transmission substrate;

a first light-shielding film disposed between said light transmission substrate and at least one of said thin film transistors;

a second light-shielding film disposed between said first light-shielding film and an active layer of said thin film transistor,

wherein a carrier concentration of a surface portion of said second light-shielding

film which opposes said active layer is about $10^{17}/\text{cm}^3$ or less.

14. The thin film transistor substrate according to Claim 13,
further comprising pixel electrodes corresponding to each of said plurality of thin
film transistors,

wherein each of said pixel electrode is driven by a thin film transistor which said
pixel electrode corresponds to.

15. The thin film transistor substrate according to Claim 14, wherein a dielectric
film inbetween capacitance electrodes is connected to said pixel electrodes in parallel.

16. The thin film transistor substrate according to claim 15,
further comprising another thin film transistor which comprises neither said first
light-shielding film nor said second light-shielding film.

17. The thin film transistor substrate according to Claim 13,
wherein an electric field intensity of a surface portion of said second light-shielding
film which opposes said active layer includes about 80% or less of that of a surface portion of
said second light-shielding film which opposes said first light-shielding film.

18. The thin film transistor substrate according to Claim 13,
wherein said second light-shielding film is made of
a material selected from a group consisting of amorphous silicon, crystallite silicon,
amorphous Silicon Germanium, poly germanium, amorphous germanium, poly Silicon
Germanium, and any combination thereof.

19. A liquid crystal display unit comprising:

a thin film transistor substrate according to claims 13;

an opposite substrate disposed to oppose said thin film transistor substrate; and

a liquid crystal layer disposed between said thin film transistor substrate and said opposite substrate.

20. A thin film transistor manufacturing method comprising:

providing a substrate;

forming a ground dielectric film on said substrate;

forming a first light-shielding film;

forming a second light-shielding film above said first light-shielding film;

doping carrier into the second light-shielding film, in such a manner that a carrier concentration of at least a surface portion opposite to said first light-shielding film of the second light-shielding film is about $10^{17}/\text{cm}^3$ or less;

forming a dielectric film above said second light film; and

forming an active layer for a thin film transistor on said dielectric film.

21. The thin film transistor manufacturing method according to claim 20,
wherein the dielectric film is formed after forming the first light-shielding film and
before forming the second light-shielding film on said first light-shielding film.